

KOCHETKOV, N.K.; KHORLIN, A.Ya.; BOCHKOV, A.P.

Monosaccharide orthoesters as glycosidation agents. Izv.  
AN SSSR. Ser. khim. no.12:2234 D '63. (MIRA 17:1)

1. Institut khimii prirodnnykh soyedinenii AN SSSR.

KOCHETKOV, N.K.; BUDOVSKIY, E.I.; TURCHINSKIY, M.F.; DEMUSHKIN, V.P.

Primary structure of RNA. Specific splitting of ribonucleic acid. Dokl. AN SSSR 152 no. 4:1005-1008 O '63. (MIRA 16:11)

1. Institut khimii prirodnikh soyedineniy AN SSSR.
2. Chlen-korrespondent AN SSSR (for Kochetkov).

MOLODTSOV, N.V.; KOCHETKOV, N.K.; DEREVITSKAYA, V.A.

Glycopeptides. Part 6: Further development of the synthesis  
of N-aminoacyl derivatives of amino sugars. Izv. AN SSSR,  
Ser. khim. no.12:2165-2172 D '63. (MIRA 17:1)

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KOCHETKOV, N.K.; CHIZHOV, O.S.

New approach to the identification of methylated monosaccharides.  
Izv. AN SSSR. Ser. khim. no.11:2069-2070 N '63. (MIRA 17:1)

1. Institut khimii prirodnnykh soyedineniy AN SSSR.

KOCHETKOV, N.K.; BUDOVSKIY, E.I.; SIMUKOVA, N.A.

Primary structure of RNA. Interaction of RNA with o-methyl-hydroxylamine. Dokl. AN SSSR 153 no.3:597-600 M '63.

(MIRA 17:1)

1. Laboratoriya uglevodov i nukleotidov Instituta khimii prirodykh soyedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Kochetkov).

DREVITSKAYA, V.A.; ZHAROV, V.G.; KOCHETKOV, N.K.

Structure of group substances of blood. Proteolysis of the A group substance. Dokl. AN SSSR 153 no.2:342-345 N '63. (MIRA 16:12)

1. Institut khimii prirodnnykh soyedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Kochetkov).

KOCHETKOV, N. K.; DMITRIYEV, B. A.

Monosaccharides. Report No. 7: New synthetic path to higher sugars. Izv AN SSSR Ser Khim no. 4: 69-677 Ap '64. (MIRA 17:5)

1. Institut khimii prirodnnykh soyedineniy AN SSSR.

KOCHETKOV, M.K.; KHOGLIN, A.Ya.; OVODOV, Yu.S.

Triterpenic saponins. Report No.7: Monosaccharide composition  
and size of the carbohydrate moiety of gypsoside. Izv. AN SSSR.  
Ser.khim. no.1:83-89 Ja '64.

Triterpenic saponins. Report No.8: Some data on the structure of  
the carbohydrate moiety of gypsoside. Ibid. 190-99 (MIRA 17:4)

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DREVITSKAYA, V.A.; LIKHOSHERSTOV, L.M.; KOCHETKOV, N.K.

Glycopeptides. Report No.7: Hydroxylaminolysis of  $\alpha$ -aminoacyl derivatives of glucose. Izv. AN SSSR. Ser.khim. no.3:469-475 Mr '64.  
(MIRA 17:4)

1. Institut khimii prirodnnykh soyedinenii AN SSSR.

KOCHETKOV, N.K.; USOV, A.I.

Monosaccharides. Report No.6: New path toward the formation of  
deoxy sugars. Izv. AN SSSR. Ser.khim. no.3:475-482 Mr '64.

1. Institut khimii prirodnikh soedineniy AN SSSR. (MIRA 17:4)

DREVITSKAYA, V. A.; MOLODTSOV, N. V.; KOCHETKOV, N. K.

Glycopeptides. Report No. 8: Synthesis of N-galacturosoylrhamine.  
Izv AN SSSR Ser Khim no. 4:677-680 Ap '64. (MIRA 17:5)

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DELEVITSAYA, V. A.; KIKOT', O. S.; KOCHETKOV, N. K.

Methylation of the blood group substance A. Izv AN SSSR.  
Ser Khim no. 4:761-763 Ap '64. (MIRA 17:5)

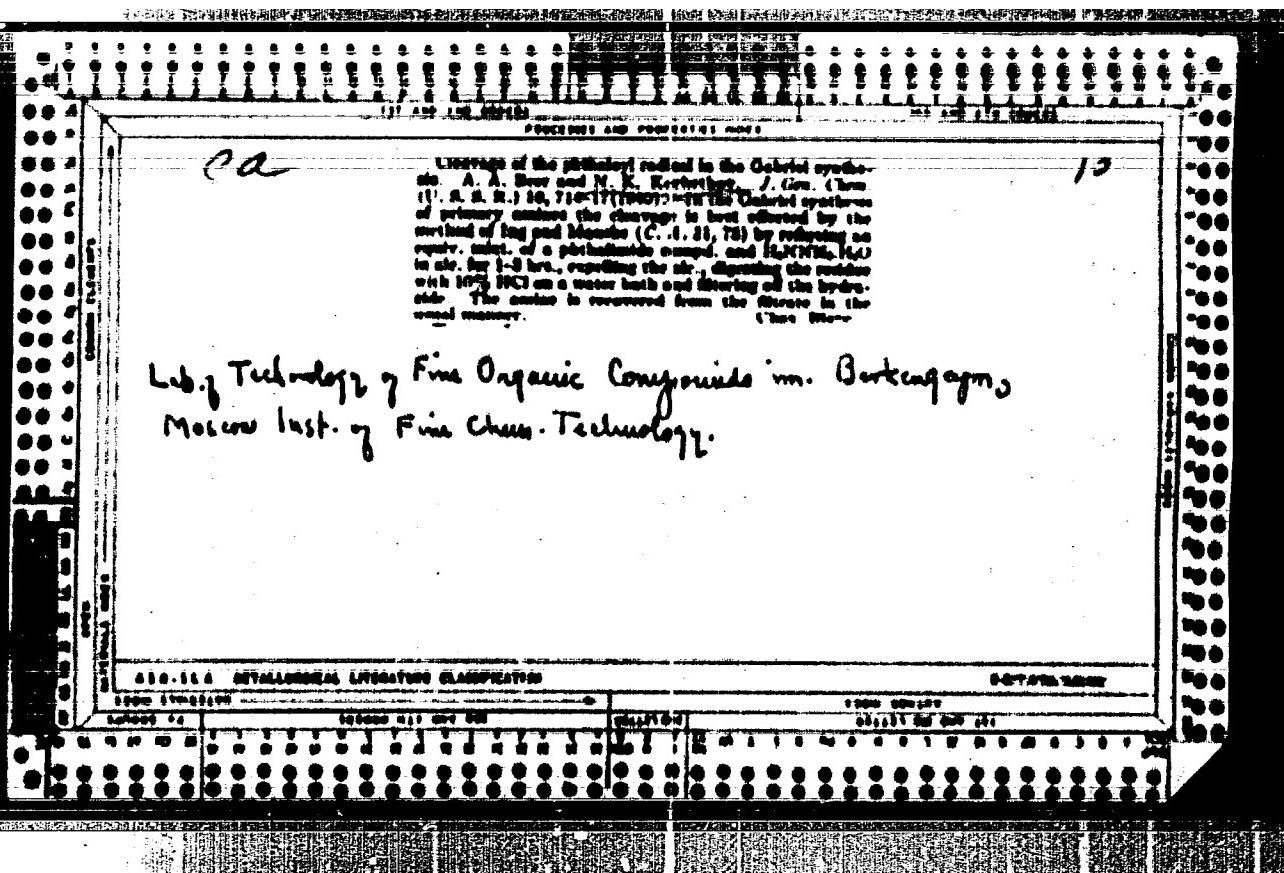
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1. LUR'YE, S. I., KULESHOVA, N. G., KOCHETKOV, V. K.

2. USSR (600)

"N-Derivatives of Imidasol (Glicoxaline). I.", Zhur. Obshch. Khim., 9, No. 21, 1939. Lab. of the Tech. of Fine Organic Compounds imeni Professor Berkengeym, Moscow Inst. of Fine Chem. Tech. Received 1 Jun 1939.

9. [REDACTED] Report U-1626, 11 Jan 1952



"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

KOCHETKOV, N. K.

"Mercury Organo Compounds. XXXIX. Reaction of 2-Chlorovinyl Compounds of Mercury with Bases."

Iz. Ak. Nauk SSSR, Otdel Khim. Nauk, 3, 1947,

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

Quasicomplex compound of phenylthiethyl methyl ketone  
with mercuric chloride. A. N. Iwasa, Yano, and N. K.  
Kochetkov. *J. Russ. Phys. Chem. Soc.*, 1896, 1, 100.  
Mercuric iodide, 10 g, was dissolved in 10 ml. of  
cold  $HgCl_2$  solution, in acetone. Acetone solution of  
ketone, 1.5 g, benzene, gave 75% addition product.  
*Anal.* C<sub>10</sub>H<sub>10</sub>O<sub>2</sub> (212.2). Found: C, 61.2; H, 4.7%;  
O, 17.1%. Ketone readily decomposed by heat or in alkalies. Treatment  
with 67% HBr gave a yellow oil, m.p. 120-20°, identified as  
*1-phenyl-1-mercapto-1-butene-J-oxide*. (1); 7.4 decolorization  
of aqueous iodine, m.p. 184.5°; acetone, m.p. 94.5°. Treatment of  
the 11g above, with 5% KI solution, with shaking gave 75%  
*C<sub>10</sub>H<sub>10</sub>O<sub>2</sub>* and a 50% yield of strong HgI in the eq layer,  
cold. NaCl similarly gave 51.5% conversion, while AgCl  
in dry *CH<sub>2</sub>Cl<sub>2</sub>* readily gave 1, as did BaCl<sub>2</sub>, AsBr<sub>3</sub>, and similar  
reagents. *PCl<sub>5</sub>/CCl<sub>4</sub>* (1.0 g) in 20 ml. *AcOH* treated  
at 8° with 1.52 g. dry *HgCl<sub>2</sub>* in *AcOH*, let stand 2 hrs., and  
heated 1 hr. to 20° gave 27 g. 1. G. M. Knoblauch.

KOCHETKOV, N. K., MBR., Inst. Organic Chem., Dept. Chem. Sci., Acad. Sci., -1948-.

"Mercury Organic Compounds. XLIII. Quasi-Complex Combination of Phenylethinyl  
Methylketone and Corrosive Sublimate."

Iz. Ak. Nauk SSSR, Otdel Khim. Nauk, 3, 1949;

Moscow Under Lenin State Univ. imeni M. V. Lomonosov, -1948-.

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**Organometallic compounds. XLIV.** Properties of bromomethylides and carbonylides of simple bromides. A. N. Neimarkov and N. K. Kostrikova (Moscow State Univ.), *J. Russ. Akad. Nauk, J. V. J. R., Dokl. Chem.* No. 1000, 807-911; cf. C.A. 65, 7415d.— $(\text{OCiC}_2\text{H}_5)_2$  (0.20 g.) (I) with 0.46 g.  $\text{Ph}_3\text{P}$  in 70 ml.  $\text{CH}_2\text{Cl}_2$  in a  $\text{N}_2$  atm. showed no tendency to react in 18 hrs.; an  $\text{Et}_2\text{O}$  soln.

gave the same result. The  $\text{Br}$  analog of I is similarly inactive, even in a steam bath, with  $\text{Ph}_3\text{P}$ . Treating  $(\text{BrC}_2\text{H}_5)_2$  with 30%  $\text{KCN}$  in a  $\text{N}_2$  stream for 1 hr. led to hydrolysis, which evolved  $\text{BrC}_2\text{H}_5$ , detected by passing through  $\text{AgNO}_3$ . Its crystalline salts, which regenerated  $(\text{BrC}_2\text{H}_5)_2$ , the residual salts, with  $\text{H}_2$  gave 50%  $\text{H}_2\text{Br}$ ; a similar result was obtained with 10%  $\text{HCl}$  at room temp., while 20%  $\text{HCl}$  did not react at room temp., but readily gave  $\text{BrC}_2\text{H}_5\text{Cl}$ , detected as above, on warming 3 hrs. in a steam bath (20% of the lig recovered as the salt).  $(\text{BrC}_2\text{H}_5)_2$  (0.2 g.) with  $\text{Ph}_3\text{MgBr}$  (from 4.0 g.  $\text{PhBr}$ ) in a  $\text{N}_2$  stream yielded  $\text{Mg}(\text{bromomethylide})_2$ , as shown by combustion to  $\text{BrC}_2\text{CO}_2$ , m. 84-85° (0.6 g.); 1.1 g. Phlig was also recovered, as well as 0.2 g.  $\text{Ph}_3\text{MgBr}$  (from 2.2 g. unreacted lig derivative).  $(\text{PhC}_2\text{H}_5)_2$  (4 g.) with carbonation 1.10 g. Phlig and 1.26 g.  $\text{PhC}_2\text{CO}_2\text{H}$ , m. 126°. Hence the lig bromomethylides do not possess quaternary properties of  $(\text{CHC}_2\text{H}_5)_2$  lig derivatives, since they are unable to form a new multiple bond between the C atoms, while the chloromethyl derivatives are able to do so.

**XLV. Preparation of monobromoalkyl boranes and alkylides from their acetates and their reduction, with  $\text{C}_6$  and  $\text{O}-$ alkylated and oxydized.** A. N. Neimarkov, I. P. Lutsenko, and Z. M. Tsvetkov, *Radiotekhnika i elektronika*, 1965, 10, 2009, 201-2. Add. of 4.3 g.  $\text{CH}_3\text{CHOAl}$  with shaking to 20 g.  $\text{NaAc}$  in 75 ml.  $\text{H}_2\text{O}$ , followed by add. of 3.8 g.  $\text{KCl}$  (after filtration of  $\text{NaAc}$ ), gave 100% (dihydrobromomethylidoborane,  $\text{CH}_3\text{C}_2\text{H}_5\text{BBr}_2$ , decom., 120-125°, similarly  $\text{CH}_3\text{C}_2\text{H}_5\text{BBr}_2$  gave 71.0%,  $\text{CH}_3\text{C}_2\text{H}_5\text{CO}_2\text{Na}$ , m. 100-110° (solids to  $\text{LiAlD}_6$  at room temp.). Cyclohexenyl borane gave 80%  $\text{J}-(\text{Alkylcyclohexenyl})\text{BBr}_2$  (D, m. 124-125° (from  $\text{H}_2\text{O}$ ), while cyclopropenyl borane gave 71.5%  $\text{J}-(\text{Alkylcyclopropane})\text{BBr}_2$  (from  $\text{NaC}_2\text{H}_5$ ). Add. of 7.8 g.  $\text{ArCl}$  to 20 g.  $\text{CH}_3\text{C}_2\text{H}_5\text{CHO}$  in ethanol gave after 1 hr. 60%  $\text{CH}_3\text{C}_2\text{H}_5\text{CHOAl}$  and a residue which by its weight, in cold  $\text{HCl}$  was shown to be free of  $\text{C}_6\text{H}_5\text{C}_2\text{H}_5\text{BBr}_2$ .  $\text{CH}_3\text{C}_2\text{H}_5\text{Al}$  with  $\text{ArCl}$  (with a little quinoline added after 1 hr. to remove unreacted  $\text{ArCl}$ ) gave 60%  $\text{ArC}_2\text{H}_5\text{BBr}_2$ ; while 1 dimethyl gave 57% cyclohexene and acetone. Likewise reaction with  $\text{BeCl}_2$ , which required 6-8 hrs. heating to 80° for completion, gave, resp.: 60%  $\text{C}_6\text{H}_5\text{C}_2\text{H}_5\text{BBr}_2$ , m. 73-8°,  $\delta^{\text{H}}$  1.2579,  $\delta^{\text{D}}$  1.0381, 60%  $\text{C}_6\text{H}_5\text{C}_2\text{H}_5\text{BBr}_2$ , m. 87°,  $\delta^{\text{H}}$  1.5171,  $\delta^{\text{D}}$  1.047; 60% cyclohexene and acetone, m. 100-110°,  $\delta^{\text{H}}$  1.2588,  $\delta^{\text{D}}$  1.0728.  $\text{CH}_3\text{C}_2\text{H}_5\text{CHO}$  (30 g.) and 20 g.  $\text{Ph}_3\text{CCl}$  in  $\text{C}_6\text{D}_6$  (1 atm.) heated overnight and refluxed 3 hrs. gave 60%  $\text{PhC}_2\text{C}_2\text{H}_5\text{CHO}$ , m. 80-85° (from  $\text{NaOH}$ ). Similarly  $\text{CH}_3\text{C}_2\text{H}_5\text{Al}$  gave 60%  $\text{PhC}_2\text{C}_2\text{H}_5\text{Al}$ , m. 100-110° (from  $\text{NaOH}$ ), while  $\text{CH}_3\text{C}_2\text{H}_5\text{BBr}_2$  gave 30%  $\text{PhC}_2\text{C}_2\text{H}_5\text{Br}$ , m. 104° (from  $\text{NaOH}$ ). **XLVI.** Addition of numerous alkoxides to acetylene salts, and others. A. N. Neimarkov, N. K. Kostrikova, and V. M.

base, while I gave to 3 days 70.20% Hg in uric acid, and yielded  $\text{PbCl}_2\text{CCO}_2\text{K}_1$ . In similar reactions with acid,  $\text{NaCl}$  were obtained, resp., 20% Hg in uric acid, in 3 days, 70% Hg in uric acid, in 20 hrs., from the 1st 3 substances, while I, and failed to react appreciably. It is in 2 weeks with 70% KI gave 30-35%  $\text{HgCO}_2\text{K}_1$ , and some  $(\text{CCO}_2\text{K}_1)$ , while 20% KI in  $\text{MgCl}_2$  gave instantaneously 16.5% of the hydrocarbons and 50%  $\text{NaCl}$ .

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A new synthesis of pyrazoles. A. N. Neogiyanova, N. K. Serezhnikov, and M. I. Klyuchnikova (M. V. Lomonosov State Univ., Moscow). *J. Russ. Chem. Soc.* 33, 3, p. 100. 1900. - Alkyl 2-bromoethyl boroxines with  $\text{NaH}$ , and arylhydrazines yield 3-pyrazolopyrroles and their 1-Ph<sub>2</sub> derivatives. To 20 g.  $\text{AlCl}_3$  and 75 g.  $\text{CCl}_4$  was added with ice cooling over 3 hrs. 80 g. (pure)  $\text{AlCl}_3$  in a stream of  $\text{CH}_2\text{Cl}_2$ , concentrated for 6 hrs.; treatment of the product with 10 g. yielded 45%  $\text{MeCDCl}_3/\text{CHCl}_3$  (I),  $\text{bc} 40-41^\circ$ ,  $d_4^{25} 1.073$ ;  $\text{KuOCl}$  gave 67%  $\text{pCDCl}_3/\text{CHCl}_3$  (II),  $\text{bc} 43-44^\circ$ ,  $d_4^{25} 1.072$ ,  $n_D^20 1.499$ ; similarly,  $\text{Pr}_2\text{CuCl}_3$  gave 74.8%  $\text{pCuCl}_3/\text{CHCl}_3$  (III),  $\text{bc} 46-47^\circ$ ,  $d_4^{25} 1.080$ ,  $n_D^20 1.490$ ;  $\text{Bu}_3\text{CuCl}$  yielded 72%  $\text{pBu}_3\text{CuCl}/\text{CHCl}_3$  (IV),  $\text{bc} 44-45^\circ$ ,  $d_4^{25} 1.017$ ,  $n_D^20 1.486$ .  $\text{NaH}-\text{H}_2\text{O}$  (4 g.) and 1 g. I in 10 ml.  $\text{H}_2\text{O}$  gave, after 24 hrs. at room temp. and 1 hr. on a steam bath, addn. of 20 ml. 67%  $\text{NaOH}$ , and extn. with  $\text{H}_2\text{O}_2$ , 61% 3-methylpyrazole (V); a 63% yield was obtained by adding 21 g.  $\text{NaOAc}$  to 10 g.  $\text{NaH}$ , sulfate in the main, addn. of 10 ml., filtering, treating, with

ice cooling and shaking with 4 g. I, letting stand 24 hrs., and heating 1 hr. on a steam bath, as above. V,  $\text{bc} 34-41^\circ$ ,  $d_4^{25} 1.030$ ,  $n_D^20 1.493$ ,  $\text{pr}_{\text{lit.}}$ ,  $m 111-112^\circ$ . The 1st procedure with II gave 44.5% 2-phenylpyrrole,  $\text{bc} 142-143^\circ$ ,  $d_4^{25} 0.9815$ ,  $n_D^20 1.494$ ;  $\text{pr}_{\text{lit.}}$ ,  $m 147-148^\circ$ . With III the 1st procedure gave 64.8% and the 2nd 64.5% 2-phenylpyrrole,  $\text{bc} 220-221^\circ$ ,  $\text{bc} 120-121^\circ$ ,  $d_4^{25} 0.9807$ ,  $n_D^20 1.4953$ ,  $\text{pr}_{\text{lit.}}$ ,  $m 113-114^\circ$ . IV gave 60% 3-phenylpyrrole,  $\text{bc} 221-222^\circ$ ,  $\text{bc} 124-125^\circ$ ,  $d_4^{25} 0.9811$ ,  $n_D^20 1.4918$ ,  $\text{pr}_{\text{lit.}}$ ,  $m 127-128^\circ$ . I (10 g.) in 20 ml.  $\text{H}_2\text{O}$  treated with 10.5 g.  $\text{pBNHNH}_2$ , in  $\text{K}_2\text{CO}_3$  with cooling, let stand 24 hrs., and heated 1 hr. on a steam bath similarly yielded 62% 1-phenyl-3-methylpyrrole,  $\text{bc} 233-241^\circ$ ,  $\text{pr}_{\text{lit.}}$ ,  $m 173-174^\circ$ . I (0.5 g.) and 0.9 g.  $p\text{-BrC}_6\text{H}_4\text{NH}_2\text{NH}_2$  refluxed in 15 ml.  $\text{AcOH}$ , let stand overnight, and dried with  $\text{NaOAc}$ , gave 70% 1-(*p*-bromophenyl)-3-methylpyrrole,  $\text{bc} 183-184^\circ$ ;  $\text{pD}_4\text{N}(\text{C}_6\text{H}_4\text{N})_2\text{VII}$ , gave 80% 1-(*p*-nitrophenyl)-3-methylpyrrole; cooling,  $m 165.5-166^\circ$  (from dd.  $\text{AcOH}$ ). II gave 84% 1-(*p*-nitrophenyl)-3-methylpyrrole,  $m 122-123^\circ$  (from dd.  $\text{AcOH}$ ), while III gave 60% 3-*p*-nitro- $\alpha$ -methyl- $\beta$ -phenylpyrrole,  $m 144-145^\circ$  (from dd.  $\text{AcOH}$ ), and IV gave 63% 3-*p*-nitro- $\alpha$ -methylpyrrole,  $m 143-144^\circ$  (from dd.  $\text{AcOH}$ ). G. M. Kondapalli

NESMEYANOV, A.N., KOCHETKOV, N.K.

Mercury Haloacetyrides

Properties of mercury haloacetyrides. Uch. zap. Mosk. un. no. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1953, Uncl.<sup>2</sup>

NESEMEYANOV, N.K., KOCHETKOV, N.V.

Mercuric Chloride

Addition of mercuric chloride to acetylenic acids and esters. Uch. zap. Mosk. un. no. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1958, Unci.<sup>2</sup>

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11

Reaction of substituted ketones with alcohols. A. V. Nevezynov, N. K. Kostylev, and M. I. Rybnikova (M. V. Lomonosov State Univ., Moscow). Izv. Akad. Nauk SSSR, Otdel. Khim. Nauk 1961, 203-401.—RCOCH<sub>2</sub>:CHCl with alcohols yields several of  $\alpha$ -keto aldehydes. Addn of 10 g. NaOH in 80 ml. abs. MeOH at under 15° to 26 g. MeCOCH<sub>2</sub>:CHCl in 26 ml. abs. MeOH, then stirring 8 hr., gave after filtration of NaCl 70%  $\alpha$ -methylaldehyde di- $\beta$ -keto ester, bp 85°,  $d_4^{20}$  0.9075,  $n_D^{20}$  1.4381, which decomposes in water and gives a red color with PrCl<sub>3</sub>. A reaction run in water and in the presence of dry HCl gave but 24.5% yield. Stirring the product with 10% HCl gave 62% bisacetylacetone, m. 160-3.5°, while treatment with NaOH, H<sub>2</sub>O in Et<sub>2</sub>O gave  $\beta$ -methylpyruvate (32%), isolated as the perchlorate, m. 141°; free base, b. 204-6°,  $\rho$ -O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NHCO<sub>2</sub>, in hot AcOH gave 44%  $\beta$ - $\beta$ -dipropionyl- $\beta$ -methylpyruvate (I), m. 166°. The ketone with NaOH, as above, gave 55% corresponding di- $\beta$ -keto ester, bp 75-77°,  $d_4^{20}$  0.9430,  $n_D^{20}$  1.4229, while NaOH gave 87% di- $\beta$ -ketone (II), bp 114-115°,  $d_4^{20}$  0.9131,  $n_D^{20}$  1.4220. Similarly EtONa with MeCOCH<sub>2</sub>:CHCl gave 57%  $\beta$ -methylaldehyde di- $\beta$ -keto ester, bp 91.5-7 mm.,  $d_4^{20}$  0.9301,  $n_D^{20}$  1.4360; PrCOCH<sub>2</sub>:CHCl gave 47%  $\beta$ -ketone,  $d_4^{20}$  0.9201, bp 84-6°,  $d_4^{20}$  0.9220,  $n_D^{20}$  1.4117; propiobutyric di- $\beta$ -keto ester, bp 84-6°,  $d_4^{20}$  0.9220,  $n_D^{20}$  1.4117. Addn. of 10 g. MeCOCH<sub>2</sub>:CHCl to 3.5 g. Na in 127 g. PhMe and stirring 4 hrs. gave 31%  $\alpha$ - $\beta$ -phenoxypropionaldehyde, bp 113-14°,  $d_4^{20}$  1.0771,  $n_D^{20}$  1.4610, and 29%  $\alpha$ -ketobutyric di- $\beta$ -keto ester (III), bp 165-6°, m. 31-2°. When the former product is warmed with 20% H<sub>2</sub>O<sub>2</sub> it yields PhCO<sub>2</sub>H readily, while treatment with  $\beta$ -PrOC<sub>2</sub>H<sub>5</sub> VII VII' in AcOH yields I. II with the same reagent gives 64% I.

(2) M. Kostylev

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*Reaction of 2-substituted benzene with alkylidene dianhydrides. A. N. Neimark and N. K. Kapitonov*

(M. V. Lomonosov State Univ., Moscow) Issled. Akad. Nauk SSSR, Chkh. Khim. Nauki 1952, no. 911 of G.4. No. 697, 1952. -Cited. (from no. 5, Mat. NO. 1000000).  
In cold  $\text{H}_2\text{O}$  with 10 g.  $\text{AlCl}_3\text{-CHCl}_3$  yielded after several  
hrs. a ppt. of 2-( $\alpha$ -phenylbenzylidene)diketone, m. 165-170°;  
 $\text{NaCO}_3$  gave a yellow soln. in  $\text{H}_2\text{O}$ ;  $\text{KOH}$ , then  $\text{BaCl}_2$ ,  
precipitated a white solid, m. 160-165°;  $\text{Ca(OAc)}_2$ , m. 165-170°;  
 $\text{NaNO}_2$ , m. 165-170°. Reaction with  
succinic anhydride gave 2-( $\alpha$ -phenylbenzylidene)- $\beta$ -succinyl ketone, m.  
165-170° (from  $\text{NaCO}_3$ );  $\text{NaCO}_3$  gave 2-( $\alpha$ -phenylbenzylidene)- $\beta$ -succinyl ketone, m.  
165-170° (from  $\text{Ca(OAc)}_2$ , then  $\text{NaCO}_3$ ).  
Reaction with 10 g.  $\text{AlCl}_3\text{-CHCl}_3$  with 1.5 g.  
 $\text{NaCO}_3$  gave 2-( $\alpha$ -phenylbenzylidene)- $\beta$ -succinyl ketone, m.  
165-170° (from  $\text{NaCO}_3$ ); reaction with 10 g.  $\text{NaCO}_3$   
(from no. 1000000); separation of the excess with 10%  $\text{NaOH}$ ,  
gave 20% free acid, dissolving 160-165° (from  $\text{NaOH-C}_2\text{H}_5\text{OH}$ ),  
combined with the filtrate, to 2-( $\alpha$ -phenylbenzylidene)- $\beta$ -succinyl ketone,  
m. 165-170° (dissolved). O. M. Kapitonov

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Synthesis in the heterocyclic series based on 2-alkoxycarbonyl benzene. A. N. Neeserianov and N. K. Kondapalli (M. V. Lomonosov Moscow State Univ.), Dokl. Akad. Nauk. SSSR, 77, 68-9 (1951); cf. C.A. 45, 1865. —  $\text{MeCOCl} \cdot \text{CHCl}$  with hydrazines, diazonium salts, e.g. azides, hydroxylamines, give a variety of heterocyclic compounds. In particular, yields. Thus, 10 g.  $\text{MeCOCl} \cdot \text{CHCl}$  in 30 ml.  $\text{Et}_2\text{O}$  added to a cooled soln. of  $\text{C}_6\text{H}_5\text{N}_2$  (from 30 g.  $\text{MeNO}_2$ ) in 220 ml.  $\text{Et}_2\text{O}$ , gave a cryst. prod. in 1 hr.; treating this with 5%  $\text{NaCO}_3$  crystallized the salt, with  $\text{BaO}$  and evap., the  $\text{Et}_2\text{O}$  gave 67.5% 2-oxopyrrolidine, m. 100-14 (from  $\text{CaCO}_3$ ), sol. in  $\text{H}_2\text{O}$ ,  $\text{BaO}$ ,  $\text{MeOH}$ , nearly sol. in petr. ether;  $\text{p}-$ nitrophenylhydrazine, m. 246-6%; caustic,

m. 143-3°, amideketone, m. 204-5° (from  $\text{H}_2\text{O}_2$ , decomps.). Reducing 3.5 g.  $\text{PbH}_2$  and 2 g.  $\text{MeCOCl} \cdot \text{CHCl}$  in 10 ml.  $\text{CaH}_2$  10 hrs. and refluxing gave 20% 2-phenyl-4-ethyl-1,3,2(III)-triazole, m. 107-8° (from d.  $\text{Et}_2\text{O}$ ), sol. in  $\text{MeOH}$ , hot  $\text{Et}_2\text{O}$ ; amideketone, m. 222-3° (from  $\text{H}_2\text{O}_2$ ); oxidation with alk.  $\text{KMO}_4$ , yields an end, m. 140-142°. Reducing 11.5 g.  $\text{NH}_2\text{OAc}$  and 10 g.  $\text{MeCOCl} \cdot \text{CHCl}$  2 hrs. in 270 ml.  $\text{MeOH}$ , treating the hot soln. with 100 g.  $\text{CaCO}_3$  in hot soln. set aside, and letting stand several days gave the Cd complex of methylacetamide, with 6 on methionine with  $\text{H}_2\text{O}_2$  and thermal decomps. (diss.) and purification by  $\text{BaO}$ , gave 8.3 g. pure methylacetamide, b. 119.5-20 m°, 4%  $\text{I}_2\text{SO}_4$ , m. 142m°; treatment with  $\text{BaO}$  (Chalon, C.A. 3, 200) showed the presence of 34%  $\beta$ -ketone.  $\text{MeCOCl} \cdot \text{CHCl}$  (22 g.) and 40 g.  $\text{ArCH}_2\text{CH}_2\text{H}_2$  in 75 ml.  $\text{EtOH}$  and, with  $\text{NH}_2$ , kept 1 hr. at room temp., and refluxed 3 hrs. gave open ketone and others, 20%  $\text{I}_2\text{Zn}$ -dimethylbenzimidazole, b. 111-112°, b. 123-124°, d. 130-133, m. 132°; puriss., m. 142-3°.

G. M. Kondapalli

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CIA-RDP86-00513R000723510014-8

6

Summary of Periodic Appraisals from 1948 to 1950  
October 1950 - December 1950 - January 1951  
by the Central Security Service  
Oct 1948 - Dec 1948: SECURITY INFORMATION  
MATERIALS CHECKED AND INDEXED FOR USE IN  
THE INFORMATION CENTER AND FOR THE INFORMATION  
DEPARTMENT. THESE MATERIALS COULD BE USED  
FOR REFERENCE WITH OTHER INFORMATION  
IN THE INFORMATION CENTER.  
NO INDEXES WERE MADE.  
NO INDEXES WERE MADE.  
NO INDEXES WERE MADE.

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CA

\* Reaction of ethyl 2-bromoethyl bromoformate with phenols.  
N. K. Kastelline, M. I. Rybnikare, and A. N. Kosmynin  
(M. V. Lomonosov State Univ., Moscow), "Study  
Abstr. Russ. S.S.R. No. 709-5001 (1961).—In  $\text{CHCl}_3$ - $\text{CH}_2\text{Cl}$  (1:1) in the presence of  $\text{NaOH}$  in various media  
with phenols in the presence of  $\text{NaOH}$  in various media  
( $\text{H}_2\text{O}$ , dioxane, excess phenol) form  $\text{RCOCH}_2\text{CHOAr}$ .  
If the reaction is prolonged,  $\text{RCOCH}_2\text{CHOAr}_2$  are obtained.  
The best yields are obtained in the cold with an  
equimolar reagent ratio in 4-6 hr. time; dioxane gives  
poorer yields than does an eq. medium. The reaction is  
best done in 20% eq.  $\text{NaOH}$ , which gives 10-27% yields.  
Thus prep. were:  $\text{MeCOCH}_2\text{CHOAr}$ , m.p. 113-14°,  $\text{mp}^{\circ}$   
130-13,  $\text{d}^21.0$ ;  $\text{MeCOCH}_2\text{C(=O)OC}_2\text{H}_5$ , m.p. 127-4°,  
 $\text{mp}^{\circ}$  130-13,  $\text{d}^21.0$ ;  $\text{PrCOCH}_2\text{CHOAr}$ , m.p. 124-5°,  $\text{mp}^{\circ}$   
132-1,  $\text{d}^21.0$ ;  $\text{iso-PrCOCH}_2\text{CHOAr}$ , m.p. 111-2°,  $\text{mp}^{\circ}$   
133-1,  $\text{d}^21.0$ ; and  $\text{MeCOCH}_2\text{C(=O)OC}_2\text{H}_5$ , m.p. 103-4°.  
2-Cdts gave 60% of the expected  $\text{ArCH}_2\text{CHOAr}_2$ ,  
m. m.; also formed in this reaction, however, was 10%  
 $\text{2,2-Na}_2\text{C(=O)H}_2\text{CHOAr}$ , needles, which with 90% yield  
the free  $\text{HO}$  compd. available to air. If this reaction is run  
in dioxane the proportions of the 2 products are effectively  
reversed. The structural proof was obtained by treatment  
with  $\text{FeCl}_3\text{HCl}$  in  $\text{AcOH-HCl}$ , yielding 2-methoxyphenyl  
1,2-diphenylpyridinium bromide (C.A. number 1), given, m.  
145-6° (from  $\text{AcOH}$ ). Addn. of  $\text{ArCH}_2\text{CHOAr}$  to  
 $\text{NaOH}-\text{HCl}$  gave after 24 hrs. 20%  $\text{ArCH}_2\text{CHOAr}_2$ , m.  
28-3°,  $\text{mp}^{\circ}$  143-2. (1. M. Kondapalli)

KOCHETKOV, N.K.; KESSEYANOV, A.N.; SEMENOV, N.A.

Synthesis of isoxazoles from 2-chlorovinyl ketones. Bull. Acad. Sci.,  
Div. Chem. Sci. '52, 97-102 [Engl. translation].  
(CA 47 no.19:9964 '53)

KESMEYANOV, A.N.; KOCHETKOV, N.K.; KARPETSKIY, M. Ya.; ALEKSANDROVA, O.V.

Diene synthesis with 2-chlorovinyl ketones. Condensation with cyclo-pentadiene. Doklady Akad. Nauk S.S.R. 82, 409-12 '52. (KIBRA 513)  
(CA 47 no.14:6876 '53)

1. M.V.Lomonosov State Univ., Moscow.

KOCHETKOV, N.K.

Synthesis of substituted hydroxypyridines from  $\beta$ -chlorovinyl ketones. C.R.  
Acad.Sci. U.R.S.S. 152, 84, 289-292.  
(MLA 516)  
(RA -All Ap 153:557)

KOCHEKOV, N. K.

(3)

Chemical Abst.  
Vol. 48 No. 4  
Feb. 25, 1954  
Organic Chemistry

Some transformations of 2-acetyl-3-methoxy-  
heptane. N. K. Kochekov and N. N. Kostylev  
Zhur. obshch. i prikladnoi khimii, Moscow, 1953,  
No. 9, p. 211-4 (1953); cf. C.A. 47, 8074g, -g.  
Acetyl-3-chlorobicyclo[2.2.1]heptane (I) (40 g.) in 400 ml.  
H<sub>2</sub>O, treated in 1 hr. with 100 ml. 10% NaOH and stirred 8  
hrs. gave 44% 2-acetyl-3-hydroxy-3-heptene, m.p. 54-6°, d<sub>4</sub>  
1.0118, n<sub>D</sub><sup>20</sup> 1.4773, which polymerizes on standing and  
readily reduces KMnO<sub>4</sub>; 3,4-dihydroxyheptane, m.  
121° (from AcOH). Hydrogenation over Pt-CuCO<sub>3</sub> yields  
2-acetyl-3-hydroxy-3-heptene, m.p. 49-51° (crude), m.p.  
1.0271, n<sub>D</sub><sup>20</sup> 1.4773; pentanetriol, m. 100-102° (cf. Plotke  
and Masevitch, Izdat. Akad. Nauk S.S.R., 1949, 218).  
I (13 g.) in EtOH treated with ice cooling with 5% NaOH in  
EtOH, dried, and estd. with P(+) gave 80% 3-acetyl-3-  
methoxybicyclo[2.2.1]-3-heptene, m.p. 102-3.5°, d<sub>4</sub> 1.0884, n<sub>D</sub>  
1.4756; similarly was obtained 57% 3-MeO-3-heptene, m.p. 70-71°,  
d<sub>4</sub> 1.0300, n<sub>D</sub><sup>20</sup> 1.4725. I heated with 50% HCOOH and  
NaOCH 10 hrs. at 100° gave 47% 2-acetyl-3-  
hepteno-3-ol formate, m.p. 109-11°, d<sub>4</sub> 1.1317, n<sub>D</sub><sup>20</sup> 1.4811; der.  
respective acetate, prep'd. similarly, m.p. 110-30°, d<sub>4</sub> 1.1100,  
n<sub>D</sub><sup>20</sup> 1.4838.

O. M. Kostylev  
1-27-54

KOCHETKOV, N.K.; ALEXANDROVA, G.V.

Diene synthesis with 2-chlorovinyl ketones. Condensation with  
aliphatic dienes. Doklady Akad. Nauk S.S.R. 85, 1033-6 '52.  
(CA 47 no.15:7449 '53) (MLRA 5:9)

1. M.V. Lomonosov State Univ., Moscow.

KOCHETKOV N. K.

USSR/Chemistry - Bismuth

Aug 52

"The Charging Effect," L. M. Kul'berg, I. S. Mustafin and N. K. Kochetkov,  
Saratov State U imeni N. G. Chernyshevskiy

"Dan SSSR" Vol 85, No 6, pp 1285-1288

The limits of applicability of the charging effect in studying the sensitivity  
of detection of Bi and Sb with the aid of nitrogen contg heterocyclic compds  
and their N-alkylates was studied. The sensitivity of such reagents under  
stable conditions depends on the chem nature of the charging group and its  
position in the mol as well as the mol wt. Presented by Acad A. N. Nesmeyanov  
21 June 52

(CA 47 no.17: 8576 '53)

238T9

ELDERFIELD, Robert Cooley, 1904- ; TUR'YEV, Yu.K., professor [redaktor]  
LUTSKO, I.Y.; REUTOV, O.A.; KUCHETKOV, N.K. [redaktors].  
*edit.*

[Heterocyclic compounds] Geterotsiklicheskie soedineniya. Perevod s ang-  
liiskogo I.Y.Lutsenko, O.A.Reutova, N.K.Kochetkova, pod red. IU.K.Tur'eva.  
Moskva, Izd-vo inostrannei lit-ry, 1953-. (MIAA 6:8)

(Heterocyclic compounds)

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*✓*  **$\beta$ -Arylvinyl ketones I. Synthesis of chiral 2-(dialkylamino)-**

*✓* **vinyl ketones.** *I. Preparation (M. V. Kowalski)*

2-*Phenyl* *Magnesium Chloride* was used to synthesize the ketones in the synthesis of the chiral 2-(dialkylamino)vinyl ketones with aromatic ketones in an equimolar ratio. The ketones were completely soluble in  $\text{H}_2\text{O}$ , and each had a relatively insoluble polarity in the oils of both ketones. In 70 ml. 61% eq.  $\text{NaOH}$  was added with stirring 16.6 g. Al. (1.1  $\text{CH}_2\text{Cl}_2$ ) the mix. stood after 2.5 hr. at room temp. with  $\text{K}_2\text{CO}_3$  dried with  $\text{H}_2\text{O}$  12 hrs., and the ext. dist. and dried yielding 76.5%  $\text{AcCH}(\text{CH}_2\text{NHR})_2$  (I).  $m.p.$  181-3°. In 21 ml. 0.734, eq. 1.5M  $\text{LiCl}$ , gives a red color with  $\text{FeCl}_3$ .  $m.p.$  116-16°. Similarity was obtained 40.5%  $\text{AcCH}(\text{CH}_2\text{NHR})_2$ ,  $m.p.$  126-5°,  $m.p.$  133.7° (per cent. m. 118-12°), 70%  $\text{Boronine}$  staining,  $m.p.$  154-5°,  $m.p.$  153,  $m.p.$  157.8° (per cent. m. 122-3°). Both ketones give a red color with  $\text{FeCl}_3$ , 61%  $\text{Pr}_2\text{NHCH}_2\text{NHR}$ ,  $m.p.$  131°,  $m.p.$  139,  $m.p.$  139.5°; and 60%  $\text{CuSO}_4\text{CH}_2\text{NHR}$ ,  $m.p.$  134-5°,  $m.p.$  134.5°,  $m.p.$  137.0°. 1.0 g. reduced 20 min. with 0.5 ml.  $\text{Al(OH)}$  gave an yielding 94%  $\text{1},\text{1}'\text{-C}_6\text{H}_4\text{Ar}_2$ ,  $m.p.$  162-3° (from  $\text{H}_2\text{O}$ ), identical with an authentic specimen.

The picrates of the amine derivs. are relatively unstable.

O. M. Kowalski

NESMEEYANOV, A.N.; KOCHETKOV, N.K.; BYBORSKAYA, M.I.

Synthesis of 2-alkyl naphto- and 2-alkyl benzopyrylium salts on the basis  
of  $\beta$ -chlorovinyl ketones. Izv. AN SSSR Otd. khim. nauk no. 3:479-483 May-Ju '53.  
(KLRA 6:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Benzopyrylium compounds)

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K. H. S., N.Y.

Opus 8

CATAlysts

Chemical Abst.  
Vol. 48 No. 8  
Apr. 25, 1954  
Organic Chemistry

Reaction of acids between the acetone,  $\text{CH}_3\text{COCl}$ , and the bromine,  $\text{Br}_2$ ,  $\text{V}\text{. Lengenbach}$ , *J. Am. Chem. Soc.*, 72, 703 (1950). — In 20 ml.  $\text{CH}_3\text{COCl}$  in 100 ml.  $\text{Et}_2\text{O}$  was added 7.0 g.  $\text{Br}_2$  with cooling and after the substance of the initial reaction the mixt. was refluxed 1 hr., treated with cooling over 1 hr. with 50 g.  $\text{CH}_3\text{COCl}$  in  $\text{Et}_2\text{O}$ , stirred (about 4 hrs. at room temp.), treated with 5% HCl, stirred 0.5 hr., and the org. layer washed with 1%  $\text{Na}_2\text{CO}_3$  in the cold, giving 9 g. unreacted  $\text{CH}_3\text{COCl}$  and 16 g. *4-phenyl-4-chloro-1-pyruvyl-3-one* (I), m. 130-0°, n<sub>D</sub> 1.57° (from petr. ether); *2,4-dinitrophenylhydrazine*, m. 170-1° (from  $\text{AcOH}$ ). Similarly  $\text{MeCH}_2\text{COCl}$  gave *4-phenyl-4-bromo-1-pyruvyl-3-one*, m. 145-6°; *2,4-dinitrophenylhydrazine*, m. 180-8°.  $\text{EtCH}_2\text{BrCOCl}$  gave *1-phenyl-4-bromo-1-arynyl-3-one*, m. 167-8-9°; *2,4-dinitrophenylhydrazine*, m. 160-4°.  $\text{MeCH}_2\text{BrCOCl}$  gave *1-phenyl-4-bromo-4-methyl-1-pyruvyl-3-one*, m. 140-8°; *2,4-dinitrophenylhydrazine*, m. 172-8-9°. 1 (7.0 g.) in 150 ml.  $\text{Et}_2\text{O}$  was treated with 50 ml.  $\text{AcOH}$ , then 13.5 g.  $\text{Zn dust}$  added slowly at 40°, and the mixt. heated to 50° for completion of the reaction, and filtered; the cooled filtrate, which formed 2 layers, was萃取 with  $\text{Et}_2\text{O}$  and the dried cat. slowly deposited 0.5 g. solid, m. 160-8°, identified as ( $\text{CH}_3\text{CH}_2\text{COCl}$ ) [cf. Morris and Kucherbaek, *Ber.* 79, 1621 (1946)]. Distil. of the filtrate gave several fractions of which one, b.p. 180-200°, gave more of the above dione, while another, b.p. 110-115°, yielded  $\text{PICH}_2\text{CH}_2\text{CM}=\text{N}=\text{CONH}_2$ , m. 141-2°. In 175 ml. 70%  $\text{MeOH}$  (8 g.) it treated over 1 hr. with 2.3 g.  $\text{Zn dust}$  simultaneously with 20 ml. 25%  $\text{AcOH}$ ; and the solut. shaken 1 hr. yielded 63%  $^{14}\text{C}\text{C}_6\text{A}$ , b.p. 110-111°, n<sub>D</sub> 1.5742, d<sub>4</sub> 1.0257; *2,4-dinitrophenylhydrazine*, m. 160-1°. The ketone readily yielded *5-phenyl-3-oxypyrrolidine*, m. 120-4° [cf. Morris and Brackin, *Bull. Soc. chim.* 31, 147-51 (1953)]. The acetylene halo ketones are very sensitive to alkalies, yielding carb. They are fairly stable to acids. Heating I with 11.5 g.  $\text{NaOH}$  gave red-brown color with green fluorescence. G. M. L.

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Condensation of 2-chloroaryl ketones with phenol ethers.  
A. N. Hemmerich, M. K. Kochetkov, and L. A. Marus

S.S.Y. Laboratory State Univ., Missouri, DeHaye, Chem  
Anal. Lab. of INSTITUTE of Org. Chem.  
With catalyst by  $\text{SnCl}_4$ , chlorobenzene, and phenol ethers in  $\text{CHCl}_3$  solution. Thus, 30 g.  $\text{MgCOCl} \cdot \text{CHCl}_3$  and 20.5 g.  $\text{MeO}_2\text{Ph}$  in 50 ml.  $\text{CHCl}_3$  treated with ice cooling over 1 hr. with 10 g.  $\text{SnCl}_4$  (no HCl evolution), the react. stirred 30 min., dil. with 150 ml.  $\text{H}_2\text{O}$ , 150 ml.  $\text{H}_2\text{O}$  added, and the org. layer washed with  $\text{Na}_2\text{CO}_3$  or  $\text{CaCO}_3$  gave 46%  $\mu\text{-MeOC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{C}_6\text{H}_4\text{COCl}$ , m.p. 72-8° (from  $\text{Et}_2\text{O}$ ). Reduction-Magn. Ammeter, m.p. 225° (decomposition). Oxidation with  $\text{KMnO}_4$  gave pure amide, yield m.p. 181.2°. Similarly  $\text{BzO}_2\text{Ph}$  gave  $\mu\text{-BzO}_2\text{C}_6\text{H}_4\text{CH}_2\text{CH}_2\text{C}_6\text{H}_4\text{COCl}$ , m.p. 150-152° m.p. 177° (from petr. ether); while  $\text{AmCOCl} \cdot \text{CHCl}_3$  gave 63%  $\mu\text{-MeO}_2\text{C}_6\text{H}_4\text{CH}_2\text{CH}_2\text{C}_6\text{H}_4\text{COCl}$ , m.p. 12.2° (from  $\text{Et}_2\text{O}$ );  $\text{MeOCH}_2\text{CHCl}_3$  and  $\text{PMe}_2\text{CO}_2\text{Me}$  similarly gave 4.5%  $\mu\text{-MeO}_2\text{C}_6\text{H}_4\text{CH}_2\text{CH}_2\text{C}_6\text{H}_4\text{COCl}$ , b.p. 157.6°, m.p. 14° (from petr. ether); oxidized with  $\text{KMnO}_4$  to  $\text{C}_6\text{H}_4\text{COCl}_2\text{CH}_2\text{CH}_2\text{C}_6\text{H}_4\text{NH}_2$ , m.p. 262.8°;  $\text{m-C}_6\text{H}_4\text{OMe}$  and  $\text{MgCOCl} \cdot \text{CHCl}_3$  gave 14%  $\mu\text{-}(M\text{eO})_2\text{C}_6\text{H}_4\text{CH}_2\text{CH}_2\text{C}_6\text{H}_4\text{COCl}$ , b.p. 200-201, m.p. 68° (from petr. ether); while  $\text{m-C}_6\text{H}_4\text{OMe}$  gave 12.5%  $\text{L}\text{.S.} \text{MeO}_2\text{C}_6\text{H}_4\text{CH}_2\text{CH}_2\text{C}_6\text{H}_4\text{COCl}$ , m.p. 57.4° (from petr. ether). Thionyl chloride and  $\text{MgCOCl} \cdot \text{CHCl}_3$  similarly gave 79%  $\text{m-C}_6\text{H}_4\text{CH}_2\text{CH}_2\text{C}_6\text{H}_4\text{COCl}$ , b.p. 117 (7.5°) m.p. 22.4° (from petr. ether). L. A. Marus

KOCHETKOV M K

USSR

• *Properties of hexamethylbenzene and derivatives etc based on it.* 62

Chloroform extract

100% soluble in

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KOCHETKOV, N.K.

BIDDEFIELD, Robert, C.; LUPENKO, I.P. [translator]; KOCHETKOV, N.K.,  
[translator] TOLSTAYA, T.P. [translator]; KOMMAYEV, G.A.  
[translator]; YUR'EV, Yu.K., professor, redakteur; SATAROVA, N.V.,  
redakteur; GERASIMOVA, Ye.S., tekhnicheskiy redakteur

[Heterocyclic compounds] Geterotsiklicheskie soedineniya. Perekod  
z angliiskogo I.P. Lutsenko, i dr. Pod redaktsiei N.U. I.YU'eva.  
Moskva, Izd-vo inostrannoi lit-ry. Vol. 2. 1954. 432 p. (MLIA 7:10)  
(Heterocyclic compounds)

MILDERFIELD, R.; KOCHETKOV, N.K.[translator]; LUTSENKO, I.P.[translator];  
KONDRAT'YEVA, G.IA.[translator]; TUR'YEV, Yu.K., professor, redaktor;  
SHARAROV, Yu.S., redaktor; GHERASIMOVA, Ye.S., tekhnicheskiy redaktor

[Heterocyclic compounds. Translated from the English] Osnovotsiklicheskis soedineniiia. Pod red. R.Milderfilda. Perevod s angliiskogo  
N.K.Kochetkova, I.P.Lutsenko, G.IA.Kondrat'yevoi. Pod red. Yu.K.  
Tur'yeva. Moskva, Izd-vo inostrannoii lit-ry. Vol.3. 1954. 357 p.  
(Heterocyclic compounds) (MERA 8:4)

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155 R

### Rescue, status of Aghoritmani between

of the bromine content of the product. The bromine content of the organic layer was determined by titration with iodine solution substituted in the equation. To 1 g. 2-CBDAHCl in 12 ml. AcOH was added 5 g. of  $\text{FeBr}_3$  in dilute HCl, yielding a yellow precipitate of  $\text{FeBr}_3\text{-AcOH}$ . After centrifugation, on 10,000 rpm from AcOH, of 1 g. of 2-CBDAHCl in 10 ml. AcOH to which had been added 0.2 g. of  $\text{FeBr}_3\text{-AcOH}$ , there was obtained 0.5 g. of 2-CBDAHCl at room temperature. The white powder was washed with 10 ml. of 10%  $\text{Na}_2\text{CO}_3$  solution, dried, and 2-CBDAHCl. Soaking 1.6 g. 2-CBDAHCl in 10 ml. of 10%  $\text{Na}_2\text{CO}_3$  solution with 1.6 g. of  $\text{FeBr}_3\text{-AcOH}$  yielded 0.8 g. of 2-CBDAHCl, corresponding to 50% yield. The white powder was washed with 10 ml. of 10%  $\text{Na}_2\text{CO}_3$  solution, dried, and 2-CBDAHCl. Soaking 1.6 g. 2-CBDAHCl in 10 ml. of 10%  $\text{Na}_2\text{CO}_3$  solution with 1.6 g. of  $\text{FeBr}_3\text{-AcOH}$  yielded 0.8 g. of 2-CBDAHCl, corresponding to 50% yield. The white powder was washed with 10 ml. of 10%  $\text{Na}_2\text{CO}_3$  solution, dried, and 2-CBDAHCl. The white powder was washed with 10 ml. of 10%  $\text{Na}_2\text{CO}_3$  solution, dried, and 2-CBDAHCl.

**APPROVED FOR RELEASE: 09/18/2001**

CIA-RDP86-00513R000723510014-8"

*G. L. S. - 10/10/68*

CH<sub>3</sub>COOCH<sub>2</sub>CH<sub>2</sub>Cl (I), m.p. 105°. This was obtained in 29.6% yield when 12 g. CH<sub>3</sub>COOC<sub>2</sub>H<sub>5</sub> and 6.0 ml. AcOH were treated with 1.8 g. Cl<sub>2</sub>C<sub>2</sub>H<sub>5</sub> in 30 ml. Et<sub>2</sub>O and a 10% excess. The reaction of 1.7 g. CH<sub>3</sub>COOC<sub>2</sub>H<sub>5</sub> with 1.6 g. Cl<sub>2</sub>C<sub>2</sub>H<sub>5</sub> in 30 ml. Et<sub>2</sub>O under identical conditions gave 20.5% yield. Fractional CPAC chromatography showed that the product from the latter had a slightly higher m.p. than the product from the former. The same reaction after 14 hrs. at 20°C. produced 11.7% yield with 1.6 g. Cl<sub>2</sub>C<sub>2</sub>H<sub>5</sub>. The yield was increased to 14.4% when 1.6 g. Cl<sub>2</sub>C<sub>2</sub>H<sub>5</sub> was added to the reaction mixture after 10 hrs. which made the reaction time 24 hrs. The same reaction conditions furnished 14.4% yield when 1.6 g. Cl<sub>2</sub>C<sub>2</sub>H<sub>5</sub> was added to the reaction mixture after 14 hrs. At 20°C. After 24 hrs. the yield was 14.4%. The product was purified by column chromatography on alumina and recrystallized from Et<sub>2</sub>O. Recrystallization of I with KMnO<sub>4</sub> and NaOH gave (4-Me<sub>2</sub>C<sub>6</sub>H<sub>4</sub>)CO<sub>2</sub>. Treatment of 0.7 g. of I with 1.0 ml. AcOH and 0.1 g. KMnO<sub>4</sub> followed by 1.0 ml. Et<sub>2</sub>O in 6 ml. ethanol (EtOH) gave 0.4 g. of (4-Me<sub>2</sub>C<sub>6</sub>H<sub>4</sub>)CO<sub>2</sub> which was purified with the above three reagents.

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

6  
# Absorption spectra of sulfur compounds  
N. V. Kurnikova, N. A. Kostyleva, N. A. Orlitskaya,  
1954, USSR Pat. No. 1034, 075, 73 (Engl. translation) - See C.I. 49, 47168  
H. H.

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CIA-RDP86-00513R000723510014-8"

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

F S C R

V 5 scheme of variable absorption in water

5

treatment with Cl<sub>2</sub>/ClO<sub>2</sub> a sudden vigorous reaction took place; the excess of Br<sup>-</sup> was estimated & the change after treatment with standard calcs with ClO<sub>2</sub>; the difference between the initial and final titrations was taken as the amount of bromide removed by the treatment. The bromide removal was found to be 90% at pH 7.5 and 95% at pH 8.5. The bromide removal was found to be 90% at pH 7.5 and 95% at pH 8.5.

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APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

ELDERFIELD, Robert C.; REUTOV, O.A., [translator]; LUTSENKO, I.P.  
[translator]; KONNENKOV, N.K. [translator]; KONDRAF'Yeva, G.Ya.  
[translator]; YUN'YEV, Yu.K., professor, redaktor; SHABAROV, Yu.S.  
redaktor; OGANIEZHANOVA, N.A., redaktor; GERASIMOVA, Ye.S.,  
tekhnicheskij redaktor.

[Heterocyclic compounds. Translated from the English] Geterotsiklicheskie soedinenija. Perevod s anglijskogo O.A. Reutova, i dr.  
Pod red. Ju.K. Jur'eva. Moskva, Izd-vo inostrannoj lit-ry, Vol.  
4, 1955. 538 p.  
(Heterocyclic compounds)

Kochetkov N. K.

✓ Reaction of alkyl chloroformate ketides with ethyl aceto-acetic ester. N. A. Kochetkov. U.S. Patent, issued  
26 November, 1958. No. 2,875,734 (Engl. translation) -- See C. A. 50, 8332  
B. M. R.

3 5  
A 10072  
Scrp/ed  
PM

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

*Reaction of 1-chloro-1-alkene with aromatic  
N-heterocycles. I. Cyclohexa-1,4-diene, and N,N'-bis(4-chlorophenyl)-  
N,N'-diphenylbenzidine. Part II. Cyclohexa-1,4-diene, and N,N'-bis(4-chlorophenyl)-  
(Engl. translation). -See C.A. 50, 60001. -D.M.R.*

*M.A.YOURZ*

*5009/CL*

*DM*

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

Kochert Ray N. R.

*Received at the Research Institute with  
and discussion with R. P. Klemm and N. A. Kochert  
Date: May 25, 1961, from Dr. W. M. Jones, and  
When 10 g.  $\text{FeCl}_3$  was added to 11.4 g. anthracene and 7.5  
g.  $\text{AcCH}_2\text{OEtCl}$  in 100 ml.  $\text{CHCl}_3$  for 1 hr., and the mixture was  
stirred 6 hrs., then treated with dil. HCl until acidic,  
the org. layer yielded 87.6% 1-acetyl-4-phenyl-1,3-dien-5-  
*o*-anthracene (12-acetyl-11-phenyl-9,10-dihydro-  
9,10-ethananthracene) (I), m. 143° (from  $\text{AcOH}$ ), decomp.  
200°, by esterification, decomp. 192-4°, 2,4-dinitro-  
phenyl derivative, m. 278° (from  $\text{AcOH}$ ). Similarly from the  
appropriate  $\text{RCOOH}$   $\text{CHCl}_3$  were prep'd. the following 1-  
 $\text{RCO}$  analogs of I (P. R. 1961, and in p. Green): m.p. 84-4  
93-4° (from  $\text{MeCO}_2$ ) (decomp. 200°), m.p. 101-102°  
(from  $\text{MeCO}_2$ ) (decomp. 200°), m.p. 111-116° (from  
(from  $\text{ArO}_2\text{F}$  and  $\text{H}_2\text{O}_2$ );  $\text{BaCl}_2$  added to 11.4  
anthracene in 70 ml.  $\text{CHCl}_3$ , the resulting emulsion treated  
10 hrs. with dry HCl, the unreacted hydrocarbon removed,  
and the soln. evap'd. yielded 16.5% 1-acetyl-4-phenyl-1,3-dien-5-  
ene (II). Treated with powdered  $\text{NaOEt}$  in  $\text{Et}_2\text{O}$  10 hrs.  
gave 78.6% 1-acetyl-4-phenyl-9,10-dihydro-9,10-ethananthracene  
analog (III), m. 174-5° (from  $\text{MeCO}_2$ ). Similarly were obtained:  
the 1- $\text{PrCO}_2$ , m. 152-1° (from  $\text{MeCO}_2$ ), and 1- $\text{C}_6\text{H}_5\text{CO}_2$  analog,  
m. 160, w/t 1.000. II (3.3 g.) added to 50 ml.  $\text{Et}_2\text{NH}$  and*

(over)

7

REACTION OF 2-CHLOROVINYL . . .

reduced 2 hrs gave, after evapn and crystallization with 5% HCl  
and Et<sub>2</sub>O, 20.3% of the 1-Bz analog of 1, m.p. 152-5°  
(from Me<sub>2</sub>O), while the eq. vinyl gave 64.3% 1,2-Di-N  
acetyl-4-Bz, m.p. 152-4° (from eq. Me<sub>2</sub>OEt) (percent, m.p.  
87). 1 (0.51 g.) shaken with 0.6 g. NaBH<sub>4</sub> in 15 ml Et<sub>2</sub>O  
2 hrs gave 87.5% 1,2-Di-O-acetyl of 1, m.p. 152-4° (from  
Me<sub>2</sub>O).

G. M. Knobbe

et al

Kochetkov, N. K.

USSR/ Chemistry - Synthesis

Card 1/1 Pub. 40 - 23/27

Authors : Nesmeyanov, A. N.; Kochetkov, N. K.; and Dombrovskiy, Ya. V.

Title : Beta-aminovinyl ketones. Part 3. Synthesis of alkyl-beta-aminovinyl ketones

Periodical : Inv. Akad. SSSR. Otd. khim. nauk 1, 179-181, Jan-Feb 1955

Abstract : Brief announcement is made on the development of a new method for the synthesis of alkyl-beta-aminovinyl ketones from beta-chlorovinyl ketones with a yield of 78 - 84% of the theoretical. This method makes alkyl-beta-aminovinyl ketones easily accessible compounds and makes it possible to use these ketones in organic synthesis. The physico-chemical properties of alkyl-beta-aminovinyl ketones are described. Seven references: 1 USSR, 3 German, 2 French and 1 USA (1924-1953). Table.

Institution: The M. V. Lomonosov State University, Moscow

Submitted : October 27, 1954

HRDONYANOV, A.N.; KOCHETKOV, N.K.; RYBINSKAYA, M.I.; UGOLOVA, B.V.

Certain reactions of alkyl- $\beta$ -phenoxyvinyl ketones. Izv. AN SSSR.  
Otd. khim. nauk no. 4:649-656 Jl-Ag '55. (MLR 9:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonossova.  
(Ketones)

KOCHETKOV, N.E.; KUDRYASHOV, L.I.; KREMENYAKOV, A.N.

The reactions of alkyl- $\beta$ -chlorevinyl ketones with ethyl acetacetate.  
Izv. AN SSSR, Otd. khim. nauk no. 5:809-816 2-0 '55. (KIRA 9:1)

1. Moscow State University named N.V. Lomonosova.  
(Ketones) (Acetoacetic acid)

AID P - 1370

**Subject : USSR/Chemistry**

Card 1/1      Pub. 119 - 3/6

**Author** : Kochetkov, N. K., (Moscow)

**Title : Chemistry of  $\beta$ -chlorovinyl ketones**

Periodical : Usp. khim., 23, no. 1, 32-51, 1955

**Abstract :** The synthesis and chemical behavior of alkyl- $\beta$ -chlorovinyl ketones are described. Their use in the synthesis of aliphatic, alicyclic, and heterocyclic compounds is reviewed. A table illustrating the transformations of  $\beta$ -chlorovinyl ketones is included. 42 references (28 Russian: 1894-1954).

Institution : None

**Submitted : No date**

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

## Example Series. II. Reactions of 1-chloromethylphenoxy.

Reaction following the SCSN, 70 ml. MeOH,  
and 1 g. 2,2-dihydroxyacetone acetate. The following hydrolysis  
was carried out at 100°C. for 1 hr. in a sealed tube. The  
reaction mixture was cooled to room temperature and  
then 10 ml. of 10% NaOH was added. After 1 hr. the  
mixture was cooled to room temperature and  
then 10 ml. of 10% HCl was added. The solution of HCl was  
then diluted with water, yielding 60% *D*-glucosaminidase.  
Thus, in S. 4, the 1 g. test, with 4.73 ml. water containing  
solid NaCl, 10 ml. of 10% HCl gave 50% *D*-glucosaminidase.  
HCl gave 50% *D*-glucosaminidase, and, with 5.67 ml.  
of 10% HCl, 10 ml. of 10% HCl gave 11% *D*-glucosaminidase.  
The 8.57 ml. of 10% HCl gave 11% *D*-glucosaminidase.  
The reaction mixture was then treated with CuO in aqueous  
10% NaOH, 10 ml. of 10% NaOH was added, 10 ml. of water  
was added, 10 ml. of 10% NaOH was added, and 10 ml. of  
water was added. The reaction mixture was then treated  
with 10 ml. of 10% NaOH.

was dark, yielding after calcination 10% of a dark brown product, which contained 10.1% of carbon. The remaining 90% was found to be a mixture of  $\text{Fe}_2\text{O}_3$  and  $\text{Fe}_3\text{O}_4$ . The latter was obtained in the form of small blackish brown cubes, which contained 10.1% of carbon. The remaining 90% was found to be a mixture of  $\text{Fe}_2\text{O}_3$  and  $\text{Fe}_3\text{O}_4$ .

*Racine Nov. 1961*

*✓ Reaction of 2-Chlorovinyl Iodides with Phenyliodonium  
Hexafluorophosphate (Moscow State Univ., Inst. Chem.)*

From J. Org. Chem. 26, 1033 (1961).—Heating 3.8 g. PhN<sub>3</sub> and 2 g.  
MeCOCH<sub>2</sub>CHCl in C<sub>6</sub>H<sub>6</sub> 10 hrs. under reflux gave 25%  
*1-Phenyl-4-acetyl-1,3,3-triazone* (I), m. 126.9° (from dil.  
EtOH), which with alk. soln. of iodine yields CH<sub>2</sub>, some  
carbamide, m. 222.3°. PhN<sub>3</sub> and MeCOCH<sub>2</sub>CHCl similarly  
gave 29.2% *1-Phenyl-4-butyl-1,2,2-triazone*, m. 106.  
10°. In MeCOCH<sub>2</sub>CHCl and PhN<sub>3</sub> similarly gave 21%  
*1-Phenyl-4-isobutyl-1,2,2-triazone*, m. 105.0°. C<sub>6</sub>H<sub>6</sub>  
COCl/CHCl and PhN<sub>3</sub> gave 41% *1-Phenyl-4-(chloroethyl)-*  
*1,2,2-triazone*, m. 184.6° (from C<sub>6</sub>H<sub>6</sub>), which heated with  
CS<sub>2</sub>NH<sub>2</sub> in EtOH 6 hrs. gave 95% *2-Amino-4-(1-phenyl-4-*  
*trifluoromethylphenoxy)-HCl·H<sub>2</sub>O*, decomp. 213.5°, free base, m.  
174.5° (from dil. EtOH). Oxidation of I with alk. KMnO<sub>4</sub>  
gave *3-Phenyl-1,2,2-triazone-4-carboxylic acid*, m. 149.5°.  
Also in *J. Org. Chem. U.S.S.R.* 26, 1512 (1953) Engl.  
transl.). G. M. Kosykh, d.

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"APPROVED FOR RELEASE: 09/18/2001

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CIA-RDP86-00513R000723510014-8"

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CIA-RDP86-00513R000723510014-8

KOCMET'KOV, NIK

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

"APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510014-8

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CIA-RDP86-00513R000723510014-8

P.A. 15672

A.C. 1000

Initial assessment of Agent's reliability and potential value.  
A. Agent's Name: [REDACTED] [REDACTED]  
B. Agent's Rank: [REDACTED] [REDACTED]  
C. Agent's Current Station: [REDACTED] [REDACTED]  
D. Agent's Previous Station: [REDACTED] [REDACTED]  
E. Agent's Current Assignment: [REDACTED] [REDACTED]  
F. Agent's Previous Assignment: [REDACTED] [REDACTED]  
G. Agent's Current Status: [REDACTED] [REDACTED]  
H. Agent's Previous Status: [REDACTED] [REDACTED]  
I. Agent's Current Location: [REDACTED] [REDACTED]  
J. Agent's Previous Location: [REDACTED] [REDACTED]  
K. Agent's Current Activity: [REDACTED] [REDACTED]  
L. Agent's Previous Activity: [REDACTED] [REDACTED]  
M. Agent's Current Status: [REDACTED] [REDACTED]  
N. Agent's Previous Status: [REDACTED] [REDACTED]  
O. Agent's Current Location: [REDACTED] [REDACTED]  
P. Agent's Previous Location: [REDACTED] [REDACTED]  
Q. Agent's Current Activity: [REDACTED] [REDACTED]  
R. Agent's Previous Activity: [REDACTED] [REDACTED]  
S. Agent's Current Status: [REDACTED] [REDACTED]  
T. Agent's Previous Status: [REDACTED] [REDACTED]  
U. Agent's Current Location: [REDACTED] [REDACTED]  
V. Agent's Previous Location: [REDACTED] [REDACTED]  
W. Agent's Current Activity: [REDACTED] [REDACTED]  
X. Agent's Previous Activity: [REDACTED] [REDACTED]  
Y. Agent's Current Status: [REDACTED] [REDACTED]  
Z. Agent's Previous Status: [REDACTED] [REDACTED]

[Signature]

ABW  
FM

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

"APPROVED FOR RELEASE: 09/18/2001

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CIA-RDP86-00513R000723510014-8"

KOCHETKOV, N.K.; DOMBROVSKIY, Yarush; KAIKHOVA, A.V.; SEVERIN, Ye.S.; KESOGYANOV,  
A.N.

$\beta$ -aminovinyl ketones. Part 4. Synthesis of ketones of the pyridine  
series. Izv. AN SSSR Otd. Khim. Nauk no. 2:172-176 F '56. (MLR 9:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.  
(Ketones) (Pyridine)

ketones. New Synthesis of vinyl  
Orig Pub: Izv. AN SSSR, otd. Khim. N., 1956, No 6, 676-680.

APPROVED FOR RELEASE: 09/18/2001 CIA-RDP86-00513R000723510014-8"

Abstract: A new method of synthesis of the products of  
methyleneketones by the hydrolysis of the products of  
interaction R (R-alkyl) and alkyl- $\beta$ -dialkylamino-  
vinylketones. The reaction proceeds smoothly with  
 $\text{CH}_3\text{I}$ , but not with  $\text{CH}_3\text{Br}$ ; the higher the radicals-  
 $\text{CH}_3$ , the yields become lower. With  $(\text{CH}_3)_2\text{SO}_4$ , the yield is  
lowered to 4-5%. The method of the synthesis of  
 $\text{RCOCH}=\text{CHN}(\text{CH}_3)_2$  (where R-alkyl) from  $\text{RCOCH}=\text{CHCl}$   
is applied in the synthesis of aryl- $\beta$ -dimethylamino-  
vinylketones. Obtained were (enumerated are the

Card : 1/3

USSR/Organic Chemistry, Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimika No 6, 1957, 19073.

ketones, yield in percent, boiling p. in  $^{\circ}\text{C}/\text{mm } n^{20}\text{D}$ ,  $d^{20}_4$ :  
 $\text{C}_2\text{H}_5\text{COCH}=\text{CHN}(\text{CH}_3)_2$ , 56.4, 95-96/4 1.5400, 0.9533;  
 $\text{C}_5\text{H}_{11}\text{COCH}=\text{CHN}(\text{CH}_3)_2$ , yield 88%, melting p. 90-91°  
(from petr. ether). A solution of 11 g.  $n\text{-Cl C}_6\text{H}_4\text{COCH}-$   
 $\text{CHCl}$  in 15 cc  $\text{C}_6\text{H}_6$  on cooling and stirring, is added  
to 20 cc of a 30% aqueous solution of  $(\text{CH}_3)_2\text{NH}$ , stirred  
for an hour, yielding  $n\text{-Cl C}_6\text{H}_4\text{COCH}=\text{CHN}(\text{CH}_3)_2$ , 82.4%,  
in an autoclave ( $110-120^{\circ}$ ) are

## USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhir - Khimiya, No 1, 1957, 848

Author: Kochetkov, [redacted], Khorlin, A. Ya., and Karpeyskiy, M. Ya.

Institution: None

Title: Direct Synthesis of Aryl- $\beta$ -chlorovinylketones

Original Periodical: Zh. obshch. khimii, 1956, Vol 26, No 2, 595-598

Abstract: A convenient method is described for the synthesis of aryl- $\beta$ -chlorovinylketones  $\text{ArCOCH} = \text{CHCl}$  (I), where Ar can be  $\text{C}_6\text{H}_5$  (a),  $n\text{-CH}_3\text{C}_6\text{H}_4$  (sic) (b),  $n\text{-ClC}_6\text{H}_4$  (c),  $o\text{-BrC}_6\text{H}_4$  (d),  $n\text{-NO}_2\text{C}_6\text{H}_4$  (e) [Tr. Note:  $n\text{-}$  apparently is equivalent to  $p\text{-}$ , by the direct reaction of  $\text{ArCOCl}$  with  $\text{C}_2\text{H}_2$  in the presence of  $\text{AlCl}_3$  and ethylene chloride. To a solution of 100 gms  $\text{C}_6\text{H}_5\text{COCl}$  in 100 ml ethylene chloride cooled to zero degrees, 95 gms of anhydrous  $\text{AlCl}_3$  are added with cooling and constant mixing (temperature  $10^\circ$ ); next,  $\text{C}_2\text{H}_2$  is passed through the mixture with vigorous stirring for 6-7 hours at  $40\text{-}50^\circ$ ; the reaction mixture is then poured over ice, and the organic layer separated and dried

Card 1/2

KOCHETKOV, N.K., KUDRYASHOV, L.I.

Interaction of  $\beta$ -chlorovinyl ketones with  $\beta$ -dicarbonyl compounds.  
Part 2. Ketovinylation of alkylmalonic esters. Zhur. ob. khim. 26  
no.3:851-856 Mr '56. (MLRA 9:8)

1. Institut farmakologii Akademii meditsinskikh nauk SSSR.  
(Malonic acid) (Ketones) (Vinylation)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

*KOCHETKOV, N.K.*

## USSR/Organic Chemistry - Synthetic Organic Chemistry

E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4405

Author : Kochetkov, N.K., Vorotnikova, L.A.  
Title : On Synthesis of Phthalazines by Cyclization of Acylhydra-  
zones of Aromatic Aldehydes

Orig Pub : Zh. obshch. khimii, 1956, 26, No 4, 1143-1149

Abstract : Treatment of acylhydrazones of aromatic aldehydes with HCl gns in iso-C<sub>6</sub>H<sub>11</sub>OH (1 hour at ~ 100° and 1 hour boiling) gives not derivatives of phthalazine (PA) as was formerly believed (Agrawal J. et al., J. Chem. Soc., 1929, 1941; 1930, 2354) but the oximes (A) of the corresponding aldehydes. This is demonstrated in the case of acetyl- and benzoyl hydrazones of veratric aldehyde (I and II) and benzoyl hydrazone of anisaldehyde. The very close melting point values of PA and the corresponding A have contributed to the previous erroneous conclusions. Formation of A and not of PA in the

Card 1/2

- 64 -

*KOCHETKOV, N.K.*

E-2

## USSR/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-Khimii, No 6, 1957, 19132

Author : Kochetkov N. K., Dudykina N. V.

Inst : Title : Synthesis of Substituted Benzylamines and N-benzyl-chloropropionamides.

Orig Pub: Zh. obshch. khimii, 1956, 26 No 9, 2612-2617

Abstract: With the purpose to determine the influence of a substituent in the nucleus of C<sub>6</sub>H<sub>5</sub>CH<sub>2</sub>NH<sub>2</sub> (I) on antispasmodic activity (PA) RCH<sub>2</sub>NHCOCH<sub>2</sub>CH<sub>2</sub>Cl (II) is synthesized; a general method of synthesis is worked out substituting I by urotropine salts. To 12 g. of 3,4-(CH<sub>3</sub>O)<sub>2</sub>OHN<sub>3</sub>CH<sub>2</sub>NH<sub>2</sub> (III) in 60 cc water at 8-10° are added in drops simultaneously 9.13 g. ClCH<sub>2</sub>CH<sub>2</sub>COCl (IV) and 2.86 g. NaOH in 15 cc water, the addition of NaOH is carried to a pH 8.0-8.5, stirred for 30-40 min. at ~ 20° and II

Card : 1/5

CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub> CH<sub>2</sub>NH<sub>2</sub> 45.6, 84-85°/10, 1.011, ...  
CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub> CH<sub>2</sub>NH<sub>2</sub> 45.6, 153-155/12, 1.5405,

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CIA-RDP86-00513R000723510014-8

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APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

KUCHEROVA, N.F.; KOCHETKOV, N.K.

Indole derivatives. Part 2. Synthesis of certain 1, 2, 3, 4-tetrahydro- $\gamma$ -carboline derivatives. Zhur. ob. khim. 26 no.11; 3149-3154  
N '56. (KIRA 10:1)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk  
SSSR, (Indole)

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APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

KESMUTANOV, A.N., KOCHETKOV, N.K.

$\beta$ -Chlorovinyl ketones in the synthesis of heterocyclic compounds.  
Uch. zap. Mosk. un. no. 175:85-95 '56.  
(Heterocyclic compounds)  
(Ketones)

(MLRA 10:3)

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

KOC'ETKOV, N.K.; KHOMUTOVA, Ye.D.; MIKHAYLOVA, O.B.; MESHCHYANOV, A.N.  
Synthesis of arylpyrazoles. Izv. AN SSSR Otd. khim. nauk  
no.10:1181-1185 O '57. (NIRE 11:3)  
1.Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Pyrazole)

Kochetkov, N. K.

KLIMKO, V.T.; KHORLIN, A.Ya.; MIKHAILOV, V.A.; SKOLDINOV, A.P.; KOCHETKOV, N.K.

 $\beta$ -Aminovinyl ketones. Part 7: Reaction of  $\beta$ -chlorovinyl ketones with tertiary amines. Izbr. tr. khim. 27 no. 1162-65 Ja '57.

(MLR 10:6)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR.  
(Vinyl compounds) (Ketones) (Amines)

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723510014-8"

486

AUTHORS:

Kochetkov, N. K., and Kudryashov, L. I.

TITLE:

Reaction of beta-Chlorovinyl Ketones with beta-Dicarbonyl Compounds. Part 3. Ketovinylation of Malonic Ester. New Synthesis of alpha-Pyrone (Vnaimodeystviye beta-khlorvinilketonov s beta-dikarbonil'nyimi soyedineniyami. III. Ketovinilirovaniye malonovogo efira. Novyy sintez alpha-pironov)

PERIODICAL:

Zhurnal Obshchey Khimii, 1957, Vol. 27, No. 1, pp. 248-253 (U.S.S.R.)

ABSTRACT:

The ketovinylation reaction of malonic ester was considered of interest for the development of new organic synthesis methods for the aliphatic and the oxygen-containing heterocyclic series. A new method of synthesizing beta-ketoalkenylmalonic esters of the  $\text{RCOCH} = \text{CHCH}(\text{COOC}_2\text{H}_5)_2$  type by the reaction of beta-chlorovinylketones with ethoxymagnesiummalonic esters, is described. Acetyl chloride which preserves the homogeneity of the medium during this reaction was used as a condensation medium. Cyclization in this case was realized simply by heating the ketoalkenylmalonic ester/ acetyl chloride mixture and the product (pyrone) obtained was purified by distillation. In this way, the authors obtained 6-methyl-, 6-ethyl- and 6-propyl-3-carboethoxy-alpha-pyrone.

Card 1/2

January 27, 1956

AVAILABLE:

487

## AUTHORS:

Kochetkov, N. K.; Kucherova, N. P.; Yevdakov, V. P.

## TITLE:

Indole Derivatives. Part 3. Synthesis of 6-Oxy-1,2,3,4-Tetrahydrocarbazole Derivatives (Proizvodnye Indola. III. Sintez proizvodnykh 6-oksii-1,2,3,4-tetragidrokarbazola)

## PERIODICAL:

Zhurnal Obozreniya Khimii, 1957, Vol. 27, No. 1, pp. 253-257  
(U.S.S.R.)

## ABSTRACT:

In order to explain the effect of changes occurring in the nucleus of the molecule on the myotic activity of indole derivatives, the authors synthesized an eserine analogue of the tetrahydrocarbazole series, namely, methylurethan of 6-oxy-9-methyl-1,2,3,4-tetrahydrocarbazole. It is shown that the Tomlinson (2,3) method of synthesizing tetracarbazoles derivatives by the condensation of aromatic amines with 2-oxyhexanone in the presence of hydrochloric acid is false and inapplicable. The products obtained by the Tomlinson method were found to be acyclic products of condensation, namely 2-arylamino-cyclohexanones. It is pointed out that the condensation of aromatic amines with oxyhexanone into tetrahydrocarbazole derivatives can be realized provided the hydrochloric acid (used by Tomlinson) is substituted with phosphorus

Card 1/2

January 4, 1956

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CIA-RDP86-00513R000723510014-8

Card 2/2

79-2-38/53

AUTHORS:

Kochetkov, N. K.; Khamtova, Ye. D.; Karpeyskiy, M. Ya.; Khorlin, A. Ya.

TITLE:

Study of Isoxazole. Part 3. Synthesis of Arylisoxazoles (Issledovaniye v ryadu isoksaazola. III. Sintez arilisoksaazolov)

PERIODICAL:

Zhurnal Osnchchey Khimii, 1957, vol 27, No 2, pp. 452-457 (U.S.S.R.)

ABSTRACT:

It is shown that aryl-beta-chlorovinyl ketones react with hydroxylamine under the very same conditions as their aliphatic analogues. When both components are heated in methanol, they produce high yields of arylisoxazoles. The reaction of alkyl-beta-chlorovinyl ketones with hydroxylamine yields a mixture of alpha- and gamma-isomers (5- and 3-substituted isoxazoles) with 50 - 60% of the alpha-form. The reaction with phenyl-beta-chlorovinyl ketone produces a mixture of alpha- and gamma-phenylisoxazoles in approximately equal amounts. The alpha-isomer content in the phenylisoxazole was 62-67%. Phenyl-beta-chlorovinyl ketones with substitutes in the aromatic ring react smoothly with hydroxylamine, giving high yields of arylisoxazoles. It is shown that the ratio of the alpha- and gamma-substituted isoxazoles formed during the reaction of beta-substituted vinyl ketones  $\text{RCOCH} = \text{CH}_2$  with hydroxylamine depends

Card 1/2

A  
C

AUTHORS:

Kochetkov, N. K. and Vinogradova, V. N.

79-2-40/58

TITLE:

Ketovinylation of Thiophenols (Ketovinilirovaniye tiofenolov)

PERIODICAL:

Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 460-464 (U.S.S.R.)

ABSTRACT:

This report is devoted to the study of the first reaction between beta-chlorovinyl ketones with thiophenols. A new method was developed for the synthesis of hitherto unknown aryl-beta-acetylvinyl sulfides which are derived with high yields from the reaction of beta-chlorovinyl ketones with thiophenols in an alkali medium. It was established that during the ketovinylation of thiophenols, the actual reaction includes the sodium thiophenolate and is followed by nucleophilic substitution of the Cl atom in the molecule of the beta-chlorovinyl ketone under the effect of the thiophenolate ion. A study of certain reactions of these compounds showed a close similarity to other beta-substituted vinyl ketones. The aryl-beta-acetylvinylsulfides  $\text{RCOCH} = \text{CHSAr}$  obtained as a result of the reaction are described as colorless solid bodies easily separated from the reaction mixture by conventional means. All the synthesized sulfides showed good storage stability.

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79-2-40/58

Ketovinylation of Thiophenols.

There are 13 references, of which 10 are Slavic

ASSOCIATION: Moscow State University

PRESENTED BY:

SUBMITTED: February 21, 1956

AVAILABLE: Library of Congress

Card 2/2

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KOCHETKOV, N. N.

AKHIEZER, A.P.; BUDOVSKIY, E.I.; GOTTIKH, B.P.; KARPEVSKIY, M.Ya.  
KUDRYASHOV, L.I.; SKOLDINOV, A.P.; SMIRNOVA, N.V.; KHORLIN, A.Ya.  
KOCHETKOV, N.N.

Dihydresarcomycin and related compounds. Part. I. Zhur. ob. khim.  
27 no.5:1312-1318 My '57. (MLIA 10:6)

1. Institut farmakologii i khimioterapii Akademii meditsinskikh  
nauk SSSR.  
(Antibiotics)

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